

Title (en)  
FLUID PROPERTY DETECTION DEVICE

Title (de)  
VORRICHTUNG ZUR DETEKTION VON FLUIDEIGENSCHAFTEN

Title (fr)  
DISPOSITIF DE DÉTECTION DE PROPRIÉTÉ DE FLUIDE

Publication  
**EP 3657161 A4 20210428 (EN)**

Application  
**EP 18854001 A 20180514**

Priority  
• JP 2017174361 A 20170911  
• JP 2018018608 W 20180514

Abstract (en)  
[origin: EP3657161A1] A fluid-property detection device 100 includes a housing 10 attached to the external device, the housing being configured to hold the outer electrode 20 and the inner electrode 30, an outer insulating member 40 provided between the housing 10 and the outer electrode 20, the outer insulating member 40 being configured to insulate between the housing 10 and the outer electrode 20 and being configured to define a position of the outer electrode 20 with respect to the housing 10, and an inner insulating member 50 provided between the outer electrode 20 and the inner electrode 30, the inner insulating member being configured to insulate between the outer electrode 20 and the inner electrode 30, being configured to insulate between the housing 10 and the inner electrode 30, and being configured to define a position of the inner electrode 30 with respect to the housing 10. The outer electrode 20 and the inner electrode 30 respectively have tip end portions, the tip end portions projecting out from the housing 10 and being configured to expose to the detection target fluid contained in the external device.

IPC 8 full level  
**G01N 27/07** (2006.01); **G01N 27/22** (2006.01)

CPC (source: EP US)  
**G01N 27/07** (2013.01 - EP US); **G01N 27/221** (2013.01 - US); **G01N 27/226** (2013.01 - EP)

Citation (search report)  
• [IY] JP 2014142204 A 20140807 - DENSO CORP  
• [IY] JP 2013195160 A 20130930 - DENSO CORP  
• [Y] US 2004036487 A1 20040226 - HEREMANS JOSEPH PIERRE [US], et al  
• [Y] US 2015346137 A1 20151203 - KATO NOBUHIRO [JP]  
• [A] EP 0893687 A1 19990127 - AEROSPATIALE [FR]  
• [E] EP 3683574 A1 20200722 - KYB CORP [JP]  
• See references of WO 2019049429A1

Cited by  
US2022099612A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**EP 3657161 A1 20200527; EP 3657161 A4 20210428; EP 3657161 B1 20240306**; CN 111051867 A 20200421; JP 2019049494 A 20190328; JP 6901355 B2 20210714; US 11231380 B2 20220125; US 2021033554 A1 20210204; WO 2019049429 A1 20190314

DOCDB simple family (application)  
**EP 18854001 A 20180514**; CN 201880056004 A 20180514; JP 2017174361 A 20170911; JP 2018018608 W 20180514; US 201816639443 A 20180514